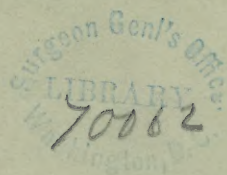


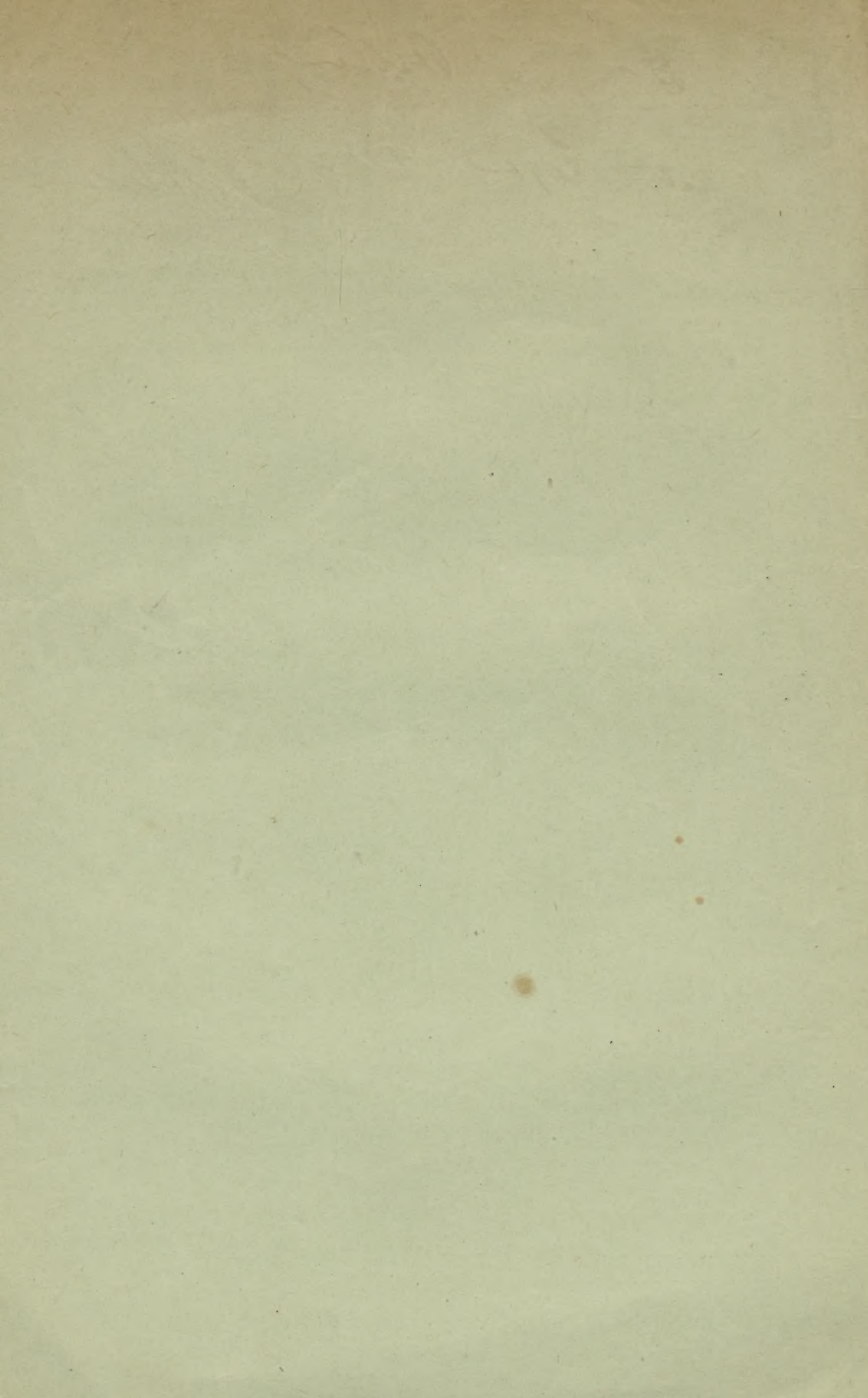
Alvord (Benj.)

Dr. J. S. Billings

with regards to Benj^r Alvord
mortality in each year & &



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 [From the Proceedings of the American Association for the Advancement of Science,
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MORTALITY IN EACH YEAR AMONG THE OFFICERS OF THE ARMY
 (INCLUDING THOSE KILLED IN BATTLE) FOR FIFTY YEARS, FROM
 1824 to 1873, AS DERIVED FROM THE ARMY REGISTERS. By
 Gen. BENJ. ALVORD, Paymaster General, U. S. Army.

| DATE OF ARMY REGISTER. | NUMBER OF OFFICERS AT COMMENCEMENT OF YEAR. | NUMBER OF DEATHS IN EACH YEAR, INCLUD- ING WAR RISKS. | PER CENT ANNUALLY. | ONE IN THE NUMBER GIVEN DIED PER YEAR. |
|------------------------------|---|---|-----------------------|--|
| 1824 | 548 | 8 | ·01459 | 1 in 68 |
| 1825 | 561 | 18 | ·03209 | 1 " 31 |
| 1826 | 570 | 8 | ·01403 | 1 " 71 |
| 1827 | 583 | 11 | ·01887 | 1 " 53 |
| 1828 | 563 | 16 | ·02842 | 1 " 35 |
| 1829 | 590 | 8 | ·01356 | 1 " 74 |
| 1830 | 616 | 7 | ·01136 | 1 " 88 |
| 1831 | 634 | 8 | ·01262 | 1 " 79 |
| 1832 | 583 | 24 | ·04117 | 1 " 24 |
| 1833 | 675 | 5 | ·00741 | 1 " 135 |
| 1834 | 671 | 23 | ·03428 | 1 " 29 |
| 1835 | 675 | 22 | ·03259 | 1 " 31 |
| 1836 | 676 | 33 | ·04882 | 1 " 20 |
| 1837 | 627 | 22 | ·03519 | 1 " 28 |
| 1838 | 723 | 18 | ·02489 | 1 " 40 |
| 1839 | 702 | 24 | ·03419 | 1 " 29 |
| 1840 | 722 | 14 | ·01939 | 1 " 51 |
| 1841 | 733 | 20 | ·02728 | 1 " 36 |
| 1842 | 786 | 16 | ·02036 | 1 " 49 |

| DATE OF ARMY REGISTER. | NUMBER OF OFFICERS AT COMMENCEMENT OF YEAR. | NUMBER OF DEATHS IN EACH YEAR, INCLUD- ING WAR RISKS. | PER CENT ANNUALLY. | ONE IN THE NUMBER GIVEN DIED PER YEAR. |
|------------------------------|---|---|-----------------------|--|
| 1843 | 814 | 4 | ·00491 | 1 in 203 |
| 1844 | 835 | 9 | ·01078 | 1 " 93 |
| 1845 | 846 | 19 | ·02246 | 1 " 44 |
| 1846 | 860 | 37 | ·04302 | 1 " 23 |
| 1847 | 939 | 80 | ·08519 | 1 " 12 |
| 1848 | 972 | 24 | ·02469 | 1 " 40 |
| 1849 | 962 | 36 | ·03742 | 1 " 27 |
| 1850 | 964 | 20 | ·02075 | 1 " 48 |
| 1851 | 1,003 | 23 | ·02293 | 1 " 44 |
| 1852 | 993 | 16 | ·01611 | 1 " 62 |
| 1853 | 979 | 43 | ·04392 | 1 " 23 |
| 1854 | 1,002 | 25 | ·02495 | 1 " 40 |
| 1855 | 996 | 22 | ·02208 | 1 " 45 |
| 1856 | 1,054 | 15 | ·01423 | 1 " 70 |
| 1857 | 1,066 | 19 | ·01773 | 1 " 56 |
| 1858 | 1,097 | 24 | ·02188 | 1 " 46 |
| 1859 | 1,102 | 15 | ·01361 | 1 " 73 |
| 1860 | 1,100 | 16 | ·01455 | 1 " 69 |
| 1861 | 1,813 | 24 | ·01324 | 1 " 75 |
| 1862 | 1,634 | 103 | ·06304 | 1 " 16 |
| 1863 | 1,943 | 89 | ·04581 | 1 " 22 |
| 1864 | 1,901 | 92 | ·04839 | 1 " 21 |
| 1865 | 1,761 | 57 | ·03237 | 1 " 31 |
| 1866 | 2,205 | 67 | ·03038 | 1 " 33 |
| 1867 | 3,000 | 67 | ·02233 | 1 " 45 |
| 1868 | 3,027 | 21 | ·00694 | 1 " 144 |
| 1869 | 2,903 | 11 | ·00378 | 1 " 264 |
| 1870 | 2,876 | 53 | ·01843 | 1 " 54 |
| 1871 | 2,435 | 48 | ·01971 | 1 " 51 |
| 1872 | 2,404 | 31 | ·01289 | 1 " 77 |
| 1873 | 2,411 | 46 | ·01908 | 1 " 52 |
| AVERAGE. | 1,203 | 29 | ·02410 | 1 " 41 |

From this it appears that the annual rate of mortality among

officers of the U. S. Army for fifty years, from 1824 to 1873, has been 24·1 per 1,000.

The Florida war extended from 1836 to 1841; the Mexican war from 1846 to '48; the civil war from 1861 to '65. These years are plainly discernible in the table by the increased rate of mortality. But it is interesting to see that this mortality is not excessive through a long period of time. The rate of mortality in the United States for 1870, according to Mr. E. B. Elliott (see page 10, "Vital Statistics of the Census"), was 21·6 per 1,000.

The annual rate of mortality in England for thirty-three years, from 1838 to 1870, was 22·4 per 1,000; of males in England in 1870, 24·3. The death rate of the United Kingdom in 1870 was 23·9, and of officers of the British Army, stationed in Great Britain in 1870, was 16·6 per 1,000. (See Report of Register General of England, pages 13, 14, and 50.)

The death rate in France from 1859-68, ten years, was 23·3 per 1,000. In 1870, it was 28·8, owing doubtless to the Franco-German war.

In Austria the death rate in 1870 was 29·2 per 1,000, against 29·3 and 28·9 in the two preceding years. The English death rate in 1870 was 23 per 1,000, or 6·2 less than in Austria.

In Spain the death rate in 1870 was 30·1 per 1,000.

From the above table it appears that the annual death rate of officers of the army in the period of twenty-five years, from 1824 to 1848, was 27 per 1,000; the rate for twenty-five years, from 1849 to 1873, was 23 per 1,000, showing a decided decrease notwithstanding the civil war.

From the statistics of "The English Life Table," by William Farr, page 18, I calculate that the average annual death rate of males over twenty-one years of age in England and Wales, from 1841 to 1851, was 21 per 1000. The exact fraction reached was ·02104.

